

## ABSTRACT OF THE DISCLOSURE

An apparatus for high efficiency gas temperature and humidity adjustment and an adjustment method allowing to raise the heat exchange efficiency of a cooling coil, reduce the cooling water quantity, also lower the pipe arrangement diameter and water supply pump power, thereby making it possible to cut the initial cost and running cost of the air-conditioning system.

The apparatus for high efficiency gas temperature and humidity adjustment is characterized by a system for removing condensate water deposited on the cooling coil.